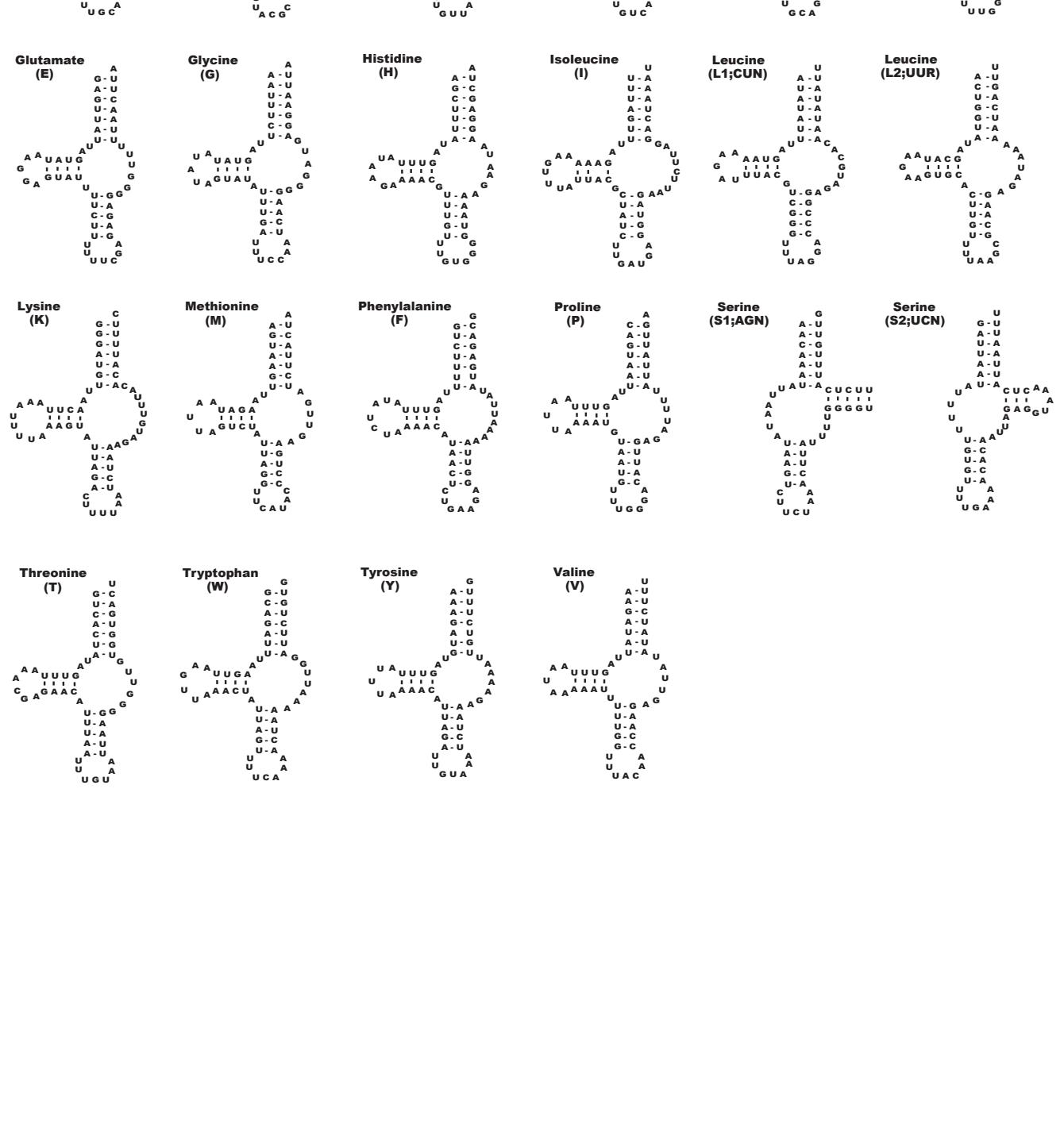


### Additional file 3A. *Cucullanus robustus*



Additional file 3A. *Cucullanus robustus*

Alanine (A) Arginine (R) Asparagine (N) Aspartate (D) Cysteine (C) Glutamine (Q)

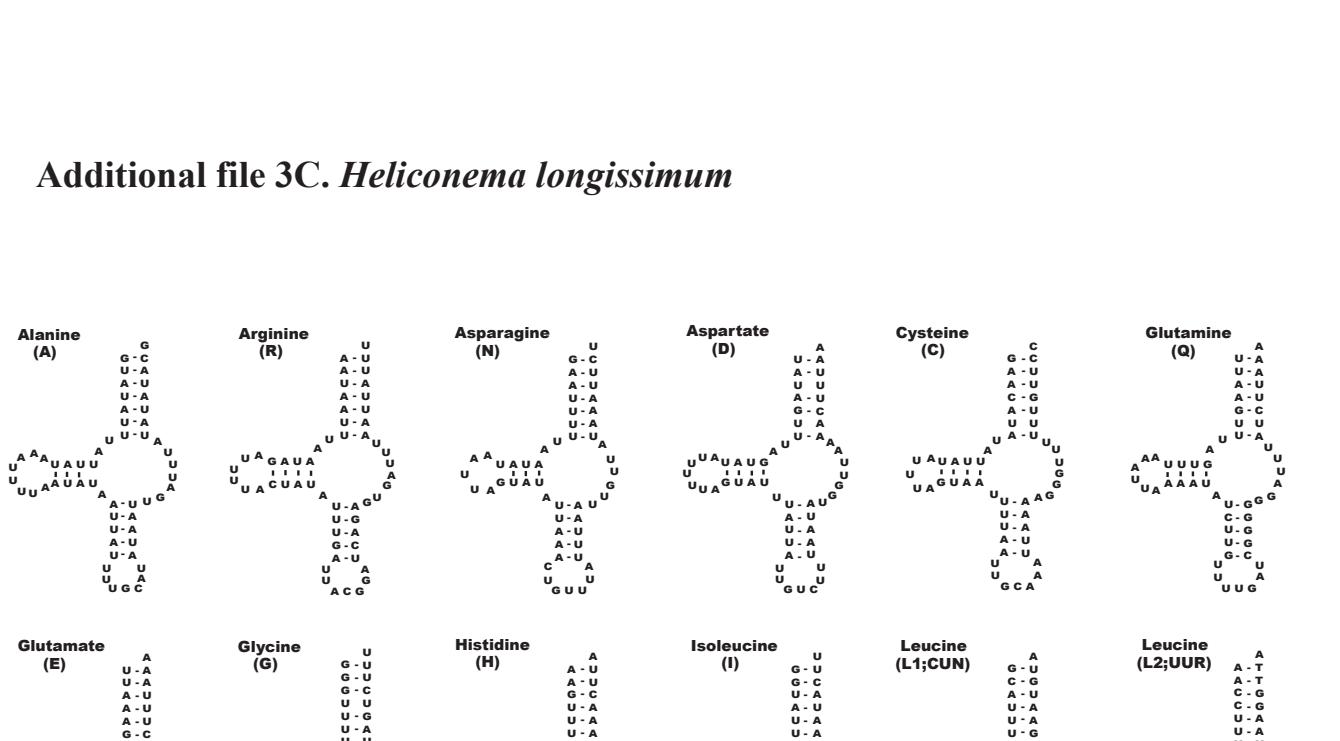
Glutamate (E) Glycine (G) Histidine (H) Isoleucine (I) Leucine (L1;CUN) Leucine (L2;UUR)

Lysine (K) Methionine (M) Phenylalanine (F) Proline (P) Serine (S1;AGN) Serine (S2;UCN)

Threonine (T) Tryptophan (W) Tyrosine (Y) Valine (V)

Stop codons: UAA, UAG, UGA

### Additional file 3B. *Wellcomia siamensis*



Additional file 3B. *Wellcomia siamensis*

Alanine (A) Arginine (R) Asparagine (N) Aspartate (D) Cysteine (C) Glutamine (Q)

Glutamate (E) Glycine (G) Histidine (H) Isoleucine (I) Leucine (L1;CUN) Leucine (L2;UUR)

Lysine (K) Methionine (M) Phenylalanine (F) Proline (P) Serine (S1;AGN) Serine (S2;UCN)

Threonine (T) Tryptophan (W) Tyrosine (Y) Valine (V)

Stop codons: UAA, UAG, UGA

### Additional file 3C. *Heliconema longissimum*



Additional file 3C. *Heliconema longissimum*

Alanine (A) Arginine (R) Asparagine (N) Aspartate (D) Cysteine (C) Glutamine (Q)

Glutamate (E) Glycine (G) Histidine (H) Isoleucine (I) Leucine (L1;CUN) Leucine (L2;UUR)

Lysine (K) Methionine (M) Phenylalanine (F) Proline (P) Serine (S1;AGN) Serine (S2;UCN)

Threonine (T) Tryptophan (W) Tyrosine (Y) Valine (V)

Stop codons: UAA, UAG, UGA